

PCT

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/720,840

DATE: 04/04/2001  
TIME: 11:38:37

Input Set : A:\5787577.app  
Output Set: N:\CRF3\04042001\I720840.raw

3 <110> APPLICANT: Biotica Technology Limited  
 4 Leadlay, Peter F  
 5 Staunton, James  
 6 Cortes, Jesus  
 7 McArthur, Hamish AI  
 9 <120> TITLE OF INVENTION: Polyketides and their synthesis  
 11 <130> FILE REFERENCE: IS/CP5787577  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/720,840  
 C--> 14 <141> CURRENT FILING DATE: 2000-12-29  
 16 <150> PRIOR APPLICATION NUMBER: GB 9814006.4  
 17 <151> PRIOR FILING DATE: 1998-06-29  
 19 <160> NUMBER OF SEQ ID NOS: 55  
 21 <170> SOFTWARE: PatentIn Ver. 2.1  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 398  
 25 <212> TYPE: PRT  
 26 <213> ORGANISM: Streptomyces sp. C5  
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 30 1 5 10 15  
 32 Ala Ile Trp Asp Ala Val Leu Asn Gly Arg Asn Gly Ile Gly Pro Leu  
 33 20 25 30  
 35 Arg Arg Phe Ala Asp Asp Gly Arg Leu Gly Arg Leu Ala Gly Glu Val  
 36 35 40 45  
 38 Ser Asp Phe Val Pro Glu Asp His Leu Pro Lys Arg Leu Leu Val Gln  
 39 50 55 60  
 41 Thr Asp Pro Met Thr Gln Met Thr Ala Leu Ala Ala Glu Trp Ala  
 42 65 70 75 80  
 44 Leu Arg Glu Ala Gly Cys Ala Pro Ser Ser Pro Leu Glu Ala Gly Val  
 45 85 90 95  
 47 Ile Thr Ala Ser Ala Ser Gly Gly Phe Ala Ser Gly Gln Arg Glu Leu  
 48 100 105 110  
 50 Gln Asn Leu Trp Ser Lys Gly Pro Ala His Val Ser Ala Tyr Met Ser  
 51 115 120 125  
 54 Phe Ala Trp Phe Tyr Ala Val Asn Thr Gly Gln Ile Ala Ile Arg His  
 54 130 135 140  
 56 Asp Leu Arg Gly Pro Val Gly Val Val Ala Glu Gln Ala Gly Gly  
 57 145 150 155 160  
 59 Leu Asp Ala Leu Ala His Ala Arg Arg Lys Val Arg Gly Gly Ala Glu  
 60 165 170 175  
 62 Leu Ile Val Ser Gly Ala Met Asp Ser Ser Leu Cys Pro Tyr Gly Met  
 63 180 185 190  
 65 Ala Ala Gln Val Arg Ser Gly Arg Leu Ser Gly Ser Asp Asp Pro Thr  
 66 195 200 205  
 68 Ala Gly Tyr Leu Pro Phe Asp Arg Arg Ala Ala Gly His Val Pro Gly  
 69 210 215 220  
 71 Glu Gly Gly Ala Ile Leu Ala Val Glu Asp Ala Glu Arg Val Ala Glu

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72	225	230	235	240
74	Arg Gly Gly Lys Val Tyr Gly Ser Ile Ala Gly Thr Ala Ser Phe Asp			
75	245	250	255	
77	Pro Pro Pro Gly Ser Gly Arg Pro Ser Ala Leu Ala Arg Ala Val Glu			
78	260	265	270	
80	Thr Ala Leu Ala Asp Ala Gly Leu Asp Arg Ser Asp Ile Ala Val Val			
81	275	280	285	
83	Phe Ala Asp Gly Ala Ala Val Gly Glu Leu Asp Val Ala Glu Ala Glu			
84	290	295	300	
86	Ala Leu Ala Ser Val Phe Gly Pro His Arg Val Pro Val Thr Val Pro			
87	305	310	315	320
89	Lys Thr Leu Thr Gly Arg Leu Tyr Ser Gly Ala Gly Pro Leu Asp Val			
90	325	330	335	
92	Ala Thr Gly Leu Leu Ala Leu Arg Asp Glu Val Val Pro Ala Thr Gly			
93	340	345	350	
95	His Val His Pro Asp Pro Asp Leu Pro Leu Asp Val Val Thr Gly Arg			
96	355	360	365	
98	Pro Arg Ala Met Ala Asp Ala Arg Ala Leu Val Val Ala Arg Gly			
99	370	375	380	
101	His Gly Gly Phe Asn Ser Ala Leu Val Val Arg Gly Ala Ala			
102	385	390	395	
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107	>211> LENGTH: 425			
108	>212> TYPE: PRT			
109	>213> ORGANISM: Streptomyces peucetius			
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115	Pro Ala Gly Arg Arg Gly Leu Arg Gly Arg Ala Val Val Thr Gly Leu			
116	20	25	30	
118	Gly Ile Val Ala Pro Asn Gly Leu Gly Val Gly Ala Tyr Trp Asp Ala			
119	35	40	45	
121	Val Leu Asn Gly Arg Asn Gly Ile Gly Pro Leu Arg Arg Phe Thr Gly			
122	50	55	60	
124	Asp Gly Arg Leu Gly Arg Leu Ala Gly Glu Val Ser Asp Phe Val Pro			
125	65	70	75	80
127	Glu Asp His Leu Pro Lys Arg Leu Leu Ala Gln Thr Asp Pro Met Thr			
128	85	90	95	
130	Gln Tyr Ala Leu Ala Ala Glu Trp Ala Leu Arg Glu Ser Gly Cys			
131	100	105	110	
133	Ser Pro Ser Ser Pro Leu Glu Ala Gly Val Ile Thr Ala Ser Ala Ser			
134	115	120	125	
136	Gly Gly Phe Ala Phe Gly Gln Arg Glu Leu Gln Asn Leu Trp Ser Lys			
137	130	135	140	
139	Gly Pro Ala His Val Ser Ala Tyr Met Ser Phe Ala Trp Phe Tyr Ala			
140	145	150	155	160
142	Val Asn Thr Gly Gln Ile Ala Ile Arg His Asp Leu Arg Gly Pro Val			
143	165	170	175	
145	Gly Val Val Val Ala Glu Gln Ala Gly Gly Leu Asp Ala Leu Ala His			

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146	180	185	190	
148	Ala Arg Arg Lys Val Arg Gly Gly Ala Glu Leu Ile Val Ser Gly Ala			
149	195	200	205	
151	Val Asp Ser Ser Leu Cys Pro Tyr Gly Met Ala Ala Gln Val Lys Ser			
152	210	215	220	
154	Gly Arg Leu Ser Gly Ser Asp Asn Pro Thr Ala Gly Tyr Leu Pro Phe			
155	225	230	235	240
157	Asp Arg Arg Ala Ala Gly His Val Pro Gly Glu Gly Ala Ile Leu			
158	245	250	255	
160	Thr Val Glu Asp Ala Glu Arg Ala Ala Glu Arg Gly Ala Lys Val Tyr			
161	260	265	270	
163	Gly Ser Ile Ala Gly Tyr Gly Ala Ser Phe Asp Pro Pro Pro Gly Ser			
164	275	280	285	
166	Gly Arg Pro Ser Ala Leu Ala Arg Ala Val Glu Thr Ala Leu Ala Asp			
167	290	295	300	
169	Ala Gly Leu Asp Gly Ser Asp Ile Ala Val Val Phe Ala Asp Gly Ala			
170	305	310	315	320
172	Ala Val Pro Glu Leu Asp Ala Ala Glu Ala Glu Ala Leu Ala Ser Val			
173	325	330	335	
175	Phe Gly Pro Arg Arg Val Pro Val Thr Val Pro Lys Thr Leu Thr Gly			
176	340	345	350	
178	Arg Leu Tyr Ser Gly Ala Gly Pro Leu Asp Val Ala Thr Ala Leu Leu			
179	355	360	365	
181	Ala Leu Arg Asp Glu Val Val Pro Ala Thr Ala His Val Asp Pro Asp			
182	370	375	380	
184	Pro Asp Leu Pro Leu Asp Val Val Thr Gly Arg Pro Arg Ser Leu Ala			
185	385	390	395	400
187	Asp Ala Arg Ala Ala Leu Leu Val Ala Arg Gly Tyr Gly Phe Asn			
188	405	410	415	
190	Ser Ala Leu Val Val Arg Gly Ala Ala			
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196	<211> LENGTH: 407			
197	<212> TYPE: PRT			
198	<213> ORGANISM: Streptomyces coelicolor			
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201	Met Ser Val Leu Ile Thr Gly Val Val Ala Pro Asn Gly Leu			
202	1	5	10	15
204	Gly Leu Ala Pro Tyr Trp Ser Ala Val Leu Asp Gly Arg His Gly Leu			
205	20	25	30	
207	Gly Pro Val Thr Arg Phe Asp Val Ser Arg Tyr Pro Ala Thr Leu Ala			
208	35	40	45	
210	Gly Gln Ile Asp Asp Phe His Ala Pro Asp His Ile Pro Gly Arg Leu			
211	50	55	60	
213	Leu Pro Gln Thr Asp Pro Ser Thr Arg Leu Ala Leu Thr Ala Ala Asp			
214	65	70	75	80
216	Trp Ala Leu Gln Asp Ala Lys Ala Asp Pro Glu Ser Leu Thr Asp Tyr			
217	85	90	95	
219	Asp Met Gly Val Val Thr Ala Asn Ala Cys Gly Gly Phe Asp Phe Thr			

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220	100	105	110
222	His Arg Glu Phe Arg Lys Leu Trp Ser Glu Gly Pro Lys Ser Val Ser		
223	115	120	125
225	Val Tyr Glu Ser Phe Ala Trp Phe Tyr Ala Val Asn Thr Gly Gln Ile		
226	130	135	140
228	Ser Ile Arg His Gly Met Arg Gly Pro Ser Ser Ala Leu Val Ala Glu		
229	145	150	155
230	160		
231	Gln Ala Gly Gly Leu Asp Ala Leu Gly His Ala Arg Arg Thr Ile Arg		
232	165	170	175
234	Arg Gly Thr Pro Leu Val Val Ser Gly Gly Val Asp Ser Ala Leu Asp		
235	180	185	190
237	Pro Trp Gly Trp Val Ser Gln Ile Ala Ser Gly Arg Ile Ser Thr Ala		
238	195	200	205
240	Thr Asp Pro Asp Arg Ala Tyr Leu Pro Phe Asp Glu Arg Ala Ala Gly		
241	210	215	220
243	Tyr Val Pro Gly Glu Gly Gly Ala Ile Leu Val Leu Glu Asp Ser Ala		
244	225	230	235
245	240		
246	Ala Ala Glu Ala Arg Gly Arg His Asp Ala Tyr Gly Glu Leu Ala Gly		
247	245	250	255
249	Cys Ala Ser Thr Phe Asp Pro Ala Pro Gly Ser Gly Arg Pro Ala Gly		
250	260	265	270
252	Leu Glu Arg Ala Ile Arg Leu Ala Leu Asn Asp Ala Gly Thr Gly Pro		
253	275	280	285
255	Glu Asp Val Asp Val Val Phe Ala Asp Gly Ala Gly Val Pro Glu Leu		
256	290	295	300
258	Asp Ala Ala Glu Ala Arg Ala Ile Gly Arg Val Phe Gly Arg Glu Gly		
259	305	310	315
260	320		
261	Val Pro Val Thr Val Pro Lys Thr Thr Gly Arg Leu Tyr Ser Gly		
262	325	330	335
264	Gly Gly Pro Leu Asp Val Val Thr Ala Leu Met Ser Leu Arg Glu Gly		
265	340	345	350
267	Val Ile Ala Pro Thr Ala Gly Val Thr Ser Val Pro Arg Glu Tyr Gly		
268	355	360	365
270	Ile Asp Leu Val Leu Gly Glu Pro Arg Ser Thr Ala Pro Arg Thr Ala		
271	370	375	380
273	Leu Val Leu Ala Arg Gly Arg Trp Gly Phe Asn Ser Ala Ala Val Leu		
274	385	390	395
276	400		
277	Arg Arg Phe Ala Pro Thr Pro		
	405		
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282	<211> LENGTH: 403		
283	<212> TYPE: PRT		
284	<213> ORGANISM: Saccharopolyspora hirsuta		
286	<400> SEQUENCE: 4		
287	Met Ser Thr Trp Val Thr Gly Met Gly Val Val Ala Pro Asn Gly Leu		
288	1	5	10
			15
290	Gly Ala Asp Asp His Trp Ala Ala Thr Leu Lys Gly Arg His Gly Ile		
291	20	25	30
293	Ser Arg Leu Ser Arg Phe Asp Pro Thr Gly Tyr Pro Ala Glu Leu Ala		

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**Output Set: N:\CRF3\04042001\I720840.raw**

294	35	40	45
296	Gly Gln Val Leu Asp Phe Asp Ala Thr Glu His Leu Pro Lys Arg Leu		
297	50	55	60
299	Leu Pro Gln Thr Asp Val Ser Thr Arg Phe Ala Leu Ala Ala Ala Ala		
300	65	70	75
302	80	Trp Ala Leu Ala Asp Ala Glu Val Asp Pro Ala Glu Leu Pro Glu Tyr	
303	85	90	95
305	Gly Thr Gly Val Ile Thr Ser Asn Ala Thr Gly Gly Phe Glu Phe Thr		
306	100	105	110
308	His Arg Glu Phe Arg Lys Leu Trp Ala Gln Gly Pro Glu Phe Val Ser		
309	115	120	125
311	Val Tyr Glu Ser Phe Ala Trp Phe Tyr Ala Val Asn Thr Gly Gln Ile		
312	130	135	140
314	Ser Ile Arg His Gly Leu Arg Gly Pro Gly Ser Val Leu Val Ala Glu		
315	145	150	155
317	160	Gln Ala Gly Gly Leu Asp Ala Val Gly His Gly Gly Ala Val Arg Asn	
318	165	170	175
320	Gly Thr Pro Met Val Val Thr Gly Gly Val Asp Ser Ser Phe Asp Pro		
321	180	185	190
323	195	200	205
326	Asp Pro Gly Arg Ala Tyr Leu Pro Phe Asp Val Ala Ala Asn Gly Tyr		
327	210	215	220
329	Val Pro Gly Glu Gly Gly Ala Ile Leu Leu Leu Glu Asp Ala Glu Ser		
330	225	230	235
332	240	Ala Lys Ala Arg Gly Ala Thr Gly Tyr Gly Glu Ile Ala Gly Tyr Ala	
333	245	250	255
335	255	Ala Thr Phe Asp Pro Ala Pro Gly Ser Glu Arg Pro Pro Ala Leu Arg	
336	260	265	270
338	270	Arg Ala Ile Glu Leu Ala Leu Ala Asp Ala Glu Leu Arg Pro Glu Gln	
339	275	280	285
341	285	Val Asp Val Val Phe Ala Asp Ala Ala Gly Val Ala Glu Leu Asp Ala	
342	290	295	300
344	300	Ile Glu Ala Ala Ala Ile Arg Glu Leu Phe Gly Pro Ser Gly Val Pro	
345	305	310	315
347	320	Val Thr Ala Pro Lys Thr Met Thr Gly Arg Leu Tyr Ser Gly Gly Gly	
348	325	330	335
350	335	Pro Leu Asp Leu Val Ala Ala Leu Leu Ala Ile Arg Asp Gly Val Ile	
351	340	345	350
353	350	Pro Pro Thr Val His Thr Ala Glu Pro Val Pro Glu His Gln Leu Asp	
354	355	360	365
356	365	Leu Val Thr Gly Asp Pro Arg His Gln Gln Leu Gly Thr Ala Leu Val	
357	370	375	380
359	380	Leu Ala Arg Gly Lys Trp Gly Phe Asn Ser Ala Val Val Val Arg Gly	
360	385	390	395
362	400	Val Thr Gly	
367	<210> SEQ ID NO: 5		
368	<211> LENGTH: 415		
369	<212> TYPE: PRT		

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/09/720,840

DATE: 04/04/2001

TIME: 11:38:38

Input Set : A:\5787577.app

Output Set: N:\CRF3\04042001\I720840.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application Number

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date